rious, usually irreversible amnesia of rapid rather than slow onset that is readily apparent even to inexperienced observers. This disorder seems associated in most cases with thiamine deficiency although there is some controversy at present as to the exact relationship.

The anatomic basis for the amnesia of Korsakoff's syndrome remains controversial. Recently the nucleus basalis of Meynert has been suggested as the major site of involvement. Patients with amnesia of the Korsakoff type have considerable neuronal loss in this nucleus, less than in Alzheimer's disease but more than in Huntington's chorea, in schizophrenia or in chronic alcoholism with intact memory. Currently, evidence is insufficient to definitely implicate a cholinergic basis for the Korsakoff syndrome, but further investigation of this possibility appears warranted.

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Neurologic Use of Calcium Channel Blocking Agents

CALCIUM ANTAGONISTS are now widely used for treatment of vasospastic angina, cardiac arrhythmias and hypertension. By preventing the influx of calcium into vascular smooth muscle, these agents inhibit vasoconstriction and promote vasodilation. Furthermore, in a patient with ischemia, blockage of membrane calcium channels may prevent the intracellular biochemical changes that result in infarction. Such properties have naturally led to investigation of these agents for their use in neurologic disease involving pathologic alteration of cerebral blood flow.

Migraine

Although the precise pathophysiologic mechanism underlying migraine remains unknown, a vasoactive component appears to be prominent in many patients with this disorder. Blocking migrainous intracranial and extracranial vasoconstriction theoretically may alleviate or prevent pain and reduce the incidence of associated focal neurologic deficit. Verapamil has been successfully used for migraine prophylaxis, generally in doses ranging from 40 to 80 mg three or four times a day and rarely with significant side effects; constipation and light-headedness are occasionally encountered. Nimodipine, a calcium antagonist with an apparent predilection for the cerebral vasculature, has likewise been used safely and effectively for migraine in a dose of 40 mg three times a day.

Vasospasm

Delayed cerebral vasospasm and consequent ischemic infarction are common and much-feared subacute complications of aneurysmal subarachnoid hemorrhage. Clinical experience with the calcium antagonists in this setting is limited, and there is no clear indication for their use at the present time. In one study, although the incidence of symptomatic cerebral vasospasm was not reduced by prophylactic use of nimodipine, such treatment did appear to lessen the severity of consequent neurologic deficit.

Ischemic Stroke

Pharmacologic protection against calcium-induced ischemic cell damage is a theoretically attractive therapy for acute stroke. In various experimental models of ischemic stroke, however, calcium antagonists have been inconsistently effective in reducing infarct size and may adversely influence outcome by promoting edema formation. A large-scale clinical trial of nimodipine for ischemic stroke is due to begin later this year, and, until results are forthcoming, this therapy should be considered experimental.

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